Conference Proceeding: 2nd INTERNATIONAL CONFERENCE ON CREATIVE MEDIA, DESIGN & TECHNOLOGY (REKA2016)

# EMPOWERMENT OF THE CRAFTERS OF TRADITIONAL CERAMIC THROUGH DEVELOPMENT OF DESIGN BASED LOCAL WISDOM

**Adam Wahida** [1]
Sebelas Maret University
[1] adamwe91@yahoo.com
**Leny Noviani** [2]
Sebelas Maret University
[2] lenynoviani79@gmail.com

**ABSTRACT**
This research aims to empower traditional ceramic crafters in Melikan Village the district of Klaten in Central Java through the form design development, ornaments, and plastic mold technique, so that the resulting ceramic products are able to compete with modern products. This research uses methodology of research development, which includes three main components: 1) model of development, 2) procedure of development, 3) product test. The steps are: 1) collecting information and identify problems of crafters, 2) identify the skills crafters, formulating development goals, determining the order of development, and limited test, 3) developing the design of a product, including: forms, ornaments, and technique of forming, 4) field testing and data analysis, 5) revise the design of the product based on the suggestions of the results of the field test. This research has been generates the shapes of ceramic products are more varied. The crafters capable of developing souvenir products such as jars, vases, and plates by applying rotary technique, plastic mold technique and ornaments of batik. The application of plastic mold technique is able to accelerate the process of mass production. While the application of ornaments on the ceramic body give the value of beauty more attractive.The existence of traditional ceramic crafters need to be preserved and cultivated because it is a cultural richness that is is full of the values of local wisdom. Based on the minds of local with the global action will give the characters on ceramic products produced.

**Keywords:** design, ceramics, plastic mold technique , ornaments

## INTRODUCTION

Melikan village of Klaten district is one of the traditional ceramic craft centers in Central Java. Many residents manage the business of making ceramic craft that have been done long enough and is inherited. Management the work of making ceramics was done by a family and kin. The crafters have mastered the skill in making shapes of ceramic to create tableware and cookware. They were mastered the skills of the process of making ceramic products with rotary technique, but his creativity is still low because the ceramics produced just repeating the design of pre-existing. Lack of creative power such causes the crafters have not been able to develop variety of shapes of ceramic products. The factors that caused the low of creativity include: 1) the lack of references about the product design, 2) the lack of courage to do an experiment to make a new design for fear of not be sold or are not accepted in the market, 3) often get orders from the brokers who had brought the design to be done according to the order. This has become the most dominant for crafters and he did not try to make the design of its own shape because it was already enough to work on orders, 4) crafters can only create ceramic shapes with rotary technique alone. Moreover, only limited usefulness rotary technique to create cylindrical shapes. Nonetheless, the existence of the business of making ceramic craft in the village of Melikan. If the skills and of creativity crafters upgraded and professionally managed then it will have very good prospects for the welfare of its citizens.n has

helped the people's economy and reduce unemployment.Besides this, the existence of these ceramics enterprises can serve as a center of craft that could potentially become a tourist attraction of art, culture, and learning resources for the general public.

**LITERATURE REVIEWS**

Clay in the Melikan village is a type of earthenware soil that has the character of low density and rugged. Earthenware soil can only be processed into plastic, so the technique could be used to form the ceramic is the technique of rotary and plastic mold techniques. This technique can be used to create three-dimensional product with two or more sides of the mold and the product of two dimensions with one side of the mold (Ponimin, 2010:86). The research also developing products with added ornaments on ceramic body. Ornament is the styling of its structural design shape, as a complementary element or ceramic decorator. Decorate the shapes of ceramics can be done by making the decoration through the elements of line, space, texture and field (Atkin Jaqui, 2005). In making these ornaments take several techniques customized to the shape of the ceramic. Several these techniques include: 1) Combing technique; decorate with combing the ceramic surface. The scratches lined a line, forming a rhythm that is structured or unstructured. As texture effects sometimes combing technique used to affix a filler in an empty field, it may also be called a simple way to decorate. 2) Press techniques is decorate with a stamp that done when the ceramic body is still wet. Techniques of press used if you want a uniform decoration or motif. 3) Carving Techniques ; scraping and reduce the ceramic surface, with carved arch-shaped scratches. This technique is done directly on the ceramic objects with half dry conditions. 4) Techniques of Piercing; decorate by punching holes in the ceramic surface. Fettle knife is a good tool for this process, because the narrow tip of a knife will provide convenience to pierce surface of the ceramic. If the knife is not cut easily to pierce into the clay, the ceramic body to crack. Decorative patterns which easily applied is a geometric form, which is displayed repeatedly or interlaced (I Made Seken, 2000: 17). In addition to several of the techniques above, the application of ornaments is also done using the techniques of painting and collage batik patchwork.

**PROBLEM STATEMENTS**

In general, ceramic crafters in the Melikan village make products cookware and tableware with the traditional shape design. The process of make the ceramic body only uses rotary technique, so that the resulting shape is less varied. Based on the above explanation, to improve product quality, is necessary to research the development of shape design, ornaments, and the application of plastic mold technique. Therefore, the research problems can be formulated as follows: 1) what is the strategy to develop the shape design and ornaments on ceramic products ?, 2) how to develop a ceramic form through the application of plastic mold technique?.

**METHODOLOGY**

This research used a qualitative approach. Studies focused on aspects of shapes design development and ornament. This strategy was chosen based on the consideration that: 1) the qualitative approach although it only covers a small/limited research sites, but is able to develop a conceptual framework that is more comprehensive, 2) the approach is not solely concerned with results only, but aspects of the process is something more mainstream, 3) even a qualitative approach is excellent if a research would like to explain a phenomenon deeply and thoroughly, so that the research results are detailed descriptions are not rigid but also in depth (Bogdan & Tylor, 1982: 35-37). This research method using research development methods is research oriented to the development of a product that development process to described accurately and the product obtained to evaluated. This research method includes three main components: 1) model of development, (2) procedure of development, and 3) product test. (Tim Puslitjaknov 2008: 8). Methods of implementation is focused on three things, are the shape and design development methods ceramic ornaments, testing product design,

and the method of settlement of the final product. Based on consideration of efficiency, particularly in terms of the time available, the implementation of these is carried out simultaneously. The procedure of this research refers to the procedure of the development Borg and Gall (1983) with the following steps: 1) Conducting preliminary research to gather information (literature review, locations observation ), identification of problems, especially in design innovation. 2) Make a plan (identification and definition of crafters skills, formulating objectives, determining sequence of development, testing on a limited scale). 3) Develop the product design include: shape design, ornament design, shaping techniques, and finishing techniques. 4) Conducting field tests early stage in 3 groups crafters which involves 6 of 30 crafters studied. The collection of information / data using observation, interviews, and questionnaires, and continued with data analysis. 5) Conducting design revisions based on feedback and suggestions from the field test results.

## RESULTS AND DISCUSSION

### 1. Shape Design Development

Design development activities is essentially the attempt to seek a better quality of appearance the shape of craft products. Considering that the crafters have mastered the rotary techniques to produce a shapes cylindrical therefore the development of the design is done by modifying the shape design (cylindrical) that already exist. The shape of cylindrical of existing developed by adding shape variety. The process of creating variations made by adding other decorative elements or merge parts of the shape ceramic of existing into a new shape. In this case the crafters were taught to make a draft of one shape design of existing, modified, and developed into three alternatives a new the shape. The process of shape design development done by two approaches: 1) create a design / sketch; taught to crafters who has the ability to create drawings or sketches, 2) imitate and modify forms; for crafters who can not make drawings / sketches can utilize his skills to make a prototype. To enrich the idea, crafters given the reference in the form of pictures / photos ceramic design. Crafters who have mastered the technique of rotary are trained to improvise the shape by adding several forms ornaments on the ceramic body. At the beginning of this process, crafters had difficulty because his mind is accustomed to create shapes that already exist. To overcome this, researchers dismantle the perspective of crafters to dare make its own shape with utilizing its capabilities. Of experiments conducted it success, crafters were able to create a new shapes that is different from the shapes of ceramics he had made.

Fig. 1. Exploration the techniques of rotary to create a new ceramic shape.

Fig. 2. Result of development of the ceramic shapes

Besides this, the crafters were also taught to develop the ceramic shapes through design of drawings or sketches. Crafters are given some pictures or designs of two-dimensional to observed is then applied into shape the ceramic according to his ability. Shapes of ceramics that developed are shapes of cylindrical and non-cylindrical.

**2. Application of Plastic Mold Technique**

This research developed a plastic mold techniques to create the ceramic shapes. Activities include making molds with gibs through the following steps: 1) preparing the ceramic models that will be produced in the shape of two-dimensional (for mold one side) and three-dimensional shapes (for mold two sided), 2) after the model is finished, then smeared with cream of soap and kerosene, so the ceramic models are not sticky with the dough of gibs at the time of mold making, 3) making the dough of gibs mixed with water enough so plasticity, not too aqueous. 4) slathered dough of gibs on the model body up to cover part of the ceramic models, 5) the mold allowed to stand for one hour until dough of gibs dry completely, then released. For models that have different side between right and left, the mold is dry on the ends hollowed semicircle to install insulation. Then the surface of the model and mold smeared cream of soap or kerosene as in the previous process. After the mold is completed, the next process is the production the ceramic The steps molding as following: prepare the clay is over-molded subsequently pressed-press until evenly across the surface of the mold. This is done also on the side of a different mold, after which both sides of the result of ceramic that molded are assembled with glue made from dough clay. The next process the ceramic be dried.

Fig. 3. The process of making molds and test results

Fig. 4. Result of development of the ceramic shapes through plastic mold technique

**3. Development of Ornament**

After the crafters exploring shapes, the next step to develop the ceramic ornaments on the body to produce the optimal shape (aesthetic and artistic). Making this ornament is a step that requires aesthetic taste, because the faulty implementation of the technique at a particular item will result in the ceramic into disharmony. Ornament is the styling of its structural design shape, as a complementary element or trimmer. Ornament applied to the the ceramic body through the processing of line, space, texture and field (Atkin, 2005). The techniques developed are: combing, impress, piercing and carving. To make the ornaments on this ceramic body needed some tools, such as combs, brushes, wire, knives, and pieces of zinc / mica. Application of combing technique is done by making a slab of clay on the surface of the ceramic body evenly. Furthermore, scratched with a comb or brush. After the crafters know the techniques to make this ornament, then conducted experiments on ceramic products that have been made. Through this experiment, crafters were able to implement it properly.

Fig. 5 Result of combing technique

The process of making ornaments also performed with press technique. The application of this technique using a stamp of textured objects, such as stones, leaves, banana bark and others. Application of press technique done on the ceramic body is still wet by pressing carefully to some parts of the ceramic body. The use of stamp adapted to the shape of ceramics to obtain harmony and beauty of shapes.

Fig. 6. Result of press technique

The development of ornamental motifs are also be done using the technique of piercing. To apply this technique, some of the tools used include: wire, knives, and pieces of zinc. Piercing technique is applied to the design of shapes the lampshade. Steps taken first by sketching motifs on ceramic body, then cut out according to need.

Fig. 7. Result of piercing technique

To decorate the ceramic through carving techniques also conducted in this research. This technique is done by scraping the ceramic body in accordance with the desired motifs. Carving on ceramic body can be done with a certain depth to the impression carvings more visible. The tools used to carve knives, wire or pieces of mica were made a blunt and sharp.

Fig. 8. Result of carving technique

**4. Ornaments with Technique of Painting and Collage**

The materials used to develop the ornament with painting is acrylic paint and glue, while the tool used is a brush and syringes. Brush used to make blocks of color while the syringes is used to make ornaments detail. Before to practice making ornaments, crafters taught about the mix of colors, painting techniques and reference pictures of the types of ornaments.To make ornaments with the dominance of flat color, crafters taught about block technique. Ornament coloring process using the levels of color that tint, tone and shade. Tint is used for the color of the object is the brightest, achieved with color pigments mixed with a white pigment. Tone for the main part the object color achieved with color pigments or can be mixed with gray. Shade to part the dark objects mixed with black pigment.

Fig. 9. Aplication of painting through block technique

Fig. 10. Ornamen result with painting technique

Making ornaments also done with patchwork technique. Materials used to apply this technique is batik cloth and glue. While the tool used is scissors and brush. The process of making these ornaments is done by: 1) to sort of batik motifs, 2) develop patterns of composition, 3) cut according to the pattern of batik cloth, 4) gluing batik cloth in the ceramic body.

Fig. 11. The process of gluing patchwork

Fig. 12. Result of patchwork technique

**CONCLUSION**

Implementation the research of design development these as a problem-solving effort of the limitations of crafters in developing the design, ornamentation, and production through plastic molding techniques. With the increasing ability of crafters in making the ceramic shapes, this research has fulfilled the expected goals. It can be seen from: 1) the ceramic products produced more varied with a wide variety of designs and forming technique. Diversity of designs and products can support the potential of Melikan village as tourism village of art and culture, so that the ceramic products can be used as souvenirs for tourists. In addition, because ceramic products produced more varied with a variety of technical, then the ceramic products Melikan expected to reach a wider market. 2) the productivity of crafters can be increased for their ability to use plastic mold techniques as an alternative technique to speed up the process of mass production. Development of design, ornaments, and the technique of ceramic making should not cease when these research are completed. But it should be followed up by the crafters to implementing material already been developed, so that the business continuity and crafters can increase income. Crafters should be be able to develop or explore the material that has been given so that the enrichment of idea the ceramic product development continue to occur.

**REFERENCES**

Atkin, Jaqui. 2005. *Pottery Basic : Everything You Need Know Ti Start Making Beautiful Ceramics.* Singapore: Page One Publishing Private Limited.

Bogdan & Tylor, 1982. *Kualitatif Dasar-dasar Penelitian*. Terjemahan A Khozim Affandi. Surabaya:.Usaha Nasional.

Buchori Zainuddin, Imam dkk. 1998. *Desain Meningkatkan Mutu Produk*. Jakarta: Pusat Desain Nasional

Damayanti, Imam. 2000. *Upaya Peningkatan Peran Aktif Pendidikan Tinggi Desain dalam Pemberdayaan Industri Kecil*. Bandung: Tesis ITB

Lincoln, YS. And Guba, EG. 1985. *Naturalistic Inquiry*. Beverly Hills, CA: sage Publication

Made, Seken I, 2000. *Pengembangan Desain dan Diversivikasi produk Kerajinan Tanah Liat Tradisional dengan Teknik Aplikasi Sungging Warna Sintetis.*Laporan Program Vucer LPM UM Malang.

Milles H.B. dan Hubberman, A.M. 1984. *Qualitative Data Analysis: A Sources Book of New Methods*. Berverly Hills, CA: Sage Publication.

Ponimin, 2010.*Desain dan Teknik Berkarya Kriya Keramik*. Bandung: Lubuk Agung

Rothberg, Robert. 1990. *Corporate Strategy and Product Innovation*. London: The Free Press.

Rohidi, Tjetjep Rohendi. 1999 .*Pengembangan Seni Kerajinan Dalam Konteks Kebudayaa Nasional*. Makalah Konferensi Kerajinan dan Rekayasa. Aula Timur ITB.

Spradley, James. 1979. *The Ethnographic Interview*. New York: Holt, Rinehart and Winston
_____. 1980. *Partisipation Observation*. New York: Holt, Rinehart and Winston

Tabrani, Primadi. 1999. *Menggali Konsep Kerajinan Tradisi Untuk Keunggulan Seni Rupa Indonesia Masa Depan*. Makalah dalam Konferensi Kerajinan dan Rekayasa di Aula Timur ITB

Widagdo, 1999. *Pengembangan desain Bagi Peningkatan Kerajinan*. Makalah Konferensi Kerajinan dan Rekayasa. Aula Timur ITB.